

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): An electronic ballast system comprising:
a) an EMI filter having an input connected to a source of excitation
and an output for providing a filtered output therefrom;

b) a full-wave rectifier having an input connected to said output of said EMI filter and providing a rectified dc voltage;

c) a power factor correction circuit having an input connected to said output of said full-wave rectifier and an output for providing a power factor regulated output therefrom; ~~and~~

d) a first inverter ballast circuit having an input connected to said output of said power factor ~~converter~~ correction circuit, said first inverter ballast circuit having a first sweep frequency circuit for supplying ~~an~~ oscillating current to power a first fluorescent lamp, without the need for preheating said lamp; and

e) an emergency inverter ballast circuit for supplying power to first fluorescent lamp when said inverter system is disabled, without preheating said lamp.

Appl. No. 10/025,318
Amdt. dated April 28, 2004
Reply to Office Action of Jan. 30, 2004

Claim 2 (previously presented): The electronic ballast system according to claim 1, wherein said EMI filter has hot and neutral terminals and wherein said electronic ballast system further comprises:

a) a power supply having an input connected across said hot and neutral terminals and providing a second dc voltage having a positive and negative potential;

b) switching means having an input connected to said output of said power supply and having a plurality of switch contacts;

c) a diode having an anode and a cathode with the anode thereof connected to said positive potential of said second dc voltage;

d) a battery having positive and negative terminal with the negative terminal connected to said negative potential of said second dc voltage and the positive terminal connected to said cathode of said diode; and

e) a second inverter ballast circuit having an input arranged by means of said plurality of said switch contacts to be interconnected to said positive and negative terminals of said battery when said second dc voltage of said power supply is absent, said second inverter ballast circuit having a sweep frequency circuit for supplying an oscillating current to a second fluorescent lamp without the need of preheating said second fluorescent lamp.

Appl. No. 10/025,318
Amdt. dated April 28, 2004
Reply to Office Action of Jan. 30, 2004

Claim 3 (previously presented): The electronic ballast system according to claim 2, wherein said second inverter ballast circuit further comprises means for supplying said oscillating current of said second inverter to said first fluorescent lamp.

Claim 4 (previously presented): The electronic ballast system according to claim 2, wherein said first inverter ballast circuit further comprises fault control logic arranged in parallel with said first fluorescent lamp and connected to an output and an input of said sweep frequency circuit and having means for disabling said sweep frequency circuit when said first fluorescent lamp becomes inoperable.

Claim 5 (cancelled)

Claim 6 (cancelled)

Claim 7 (cancelled)

Claim 8 (cancelled)

Claim 9 (cancelled)

Claim 10 (cancelled)

Claim 11 (cancelled)

Appl. No. 10/025,318
Amdt. dated April 28, 2004
Reply to Office Action of Jan. 30, 2004

Claim 12 (new): An electronic ballast system for operating four fluorescent lamps, a first fluorescent lamp, a second fluorescent lamp, a third fluorescent lamp and a fourth fluorescent lamp, said electronic ballast system comprising:

a) an EMI filter having an input connected to a source of excitation and an output for providing a filtered output therefrom;

b) a full-wave rectifier having an input connected to said output of said EMI filter and providing a rectified dc voltage;

c) a power factor correction circuit having an input connected to said output of said full-wave rectifier and an output for providing a power factor regulated output therefrom;

d) four inverter ballast circuits, a first inverter ballast circuit operatively associated with said first fluorescent lamp, a second inverter ballast circuit operatively associated with said second fluorescent lamp, a third inverter circuit operatively associated with said third fluorescent and a fourth inverter circuit operatively associated with said fourth fluorescent lamp; and

e) an emergency inverter ballast circuit supplying power to one of said fluorescent lamps when said other fluorescent lamps are disabled without preheating said fluorescent lamp.

Appl. No. 10/025,318
Amdt. dated April 28, 2004
Reply to Office Action of Jan. 30, 2004

Claim 13 (new): The electronic ballast system according to claim 12, wherein said EMI filter has hot and neutral terminals and wherein said electronic ballast system further comprises:

a) a power supply having an input connected across said hot and neutral terminals and providing a second dc voltage having a positive and negative potential;

b) switching means having an input connected to said output of said power supply and having a plurality of switch contacts;

c) a diode having an anode and a cathode with the anode thereof connected to said positive potential of said second dc voltage;

d) a battery having positive and negative terminals with the negative terminal connected to said negative potential of said second dc voltage and the positive terminal connected to said cathode of said diode; and

e) a second inverter ballast circuit having an input arranged by means of said plurality of said switch contacts to be interconnected to said positive and negative terminals of said battery when said second dc voltage of said power supply is absent, said second inverter ballast circuit having a sweep frequency circuit for supplying an oscillating current to a second fluorescent lamp without the need of preheating said second fluorescent lamp.

Appl. No. 10/025,318
Amdt. dated April 28, 2004
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Claim 14 (new): The electronic ballast system according to claim 12, wherein said second inverter ballast circuit further comprises means for supplying said oscillating current of said second inverter to said first fluorescent lamp.

Claim 15 (new): The electronic ballast system according to claim 12, wherein said first inverter ballast circuit further comprises fault control logic arranged in parallel with said first fluorescent lamp and connected to an output and an input of said sweep frequency circuit and having means for disabling said sweep frequency circuit when said first fluorescent lamp becomes inoperable.